DUTY ON BRICKS.

Mr. Editor,—I am sure you will be doing the public a great service, and that portion more immediately connected with building in particular, if you urge the necessity of a repeal of the excise upon bricks. This tax is paid upon an article produced by ourselves, and which everybody directly or indirectly consumes; therefore should the loss of this duty be felt by the minister, I am sure none could or would complain of an increase of direct taxation, which sooner or later must ensue. All bricks good, bad, and indifferent, pay the same duty. All experimentalists who attempt new modes of making bricks, should their bricks on first experiments turn out bad, suffer not only the loss of such failure in the ordinary way, but have to pay a tax to the Government for making the attempt. This has been severely felt by some landowners, who have attempted such improvements. I know a person who really commenced this on a large scale with the best possible motives, viz., that of employing the surplus poor on his estate, and from a love of art, but who was obliged to give it up, from the continued drain upon his purse for the excise upon bricks, which in the course of his experiments turned out failures.

Moreover, the law at present has a tendency to confine us to the use of a brick of a particular form and dimension, and to keep the brickmaker behind the spirit of the age. Let this law be repealed, and you would soon have bricks of a better "body" and of every size and form both for ordinary plain buildings, and for every kind of decoration a brick can be applied to, also of a better colour.

All the architects who are raising an outcry against the use of cements, should seize this opportunity of getting the word *brick* into the new measure proposed by Sir Robert Peel, and not cease agitating until they have obtained a repeal of this odious war tax, for it was first levied for the necessities of the war in the year 1784, and since that period bricks have greatly diminished in quality, and the skill of the workmen who lay them has certainly not kept pace with that shewn by all other classes engaged in building.—I am, Sir, yours, &c. Δ

WHAT IS IN THE TIBER?

We mentioned some time ago, that two or three Englishmen had offered to cleanse this celebrated stream, by dredging, and to take whatever they might find in it, in lieu of other recompense. The "Art-Union," in an article on the subject, says:—

"In reflecting upon the history of this great "Mistress of the World,"—embroiled with foreign foes, and torn by internal commotion—we feel certain that this river, running in the midst of a population of millions of men, must of necessity, both by accident and design, have been made the receptable of a host of valuable and curious things.

The Tiber had once four bridges passing over it: near one of them, the ancient Pons Janiculensis, Ancus Martius built a splendid citadel: *three* of these are destroyed, and their remains most likely lie undisturbed. The Ponte Rotto is still a highly curious ruin; near to it are the remains of the magnificent house of the great and unfortunate Rienzi, which appears to have been built in the eleventh century, and made up of fragments of an earlier date: its beautifully sculptured exterior excites general admiration. Close by, is the splendid ruin of the Temple of Vesta; the Church of St. Maria, built on the ruins of the Temple of Ceres and Proserpine. At the foot of the Ponte Rotto is the Grotto of Cacus, the remains of the Sublician Bridge, the Prata Mucrcia, the situation of the Camp of Porsenna, the mouth of the great Cloaca, the island of Esculapius—which, as is well known, once contained two splendid temples.

We mention these remains as affording an idea of the architectural treasures with which the banks of the Tiber were once enriched.

A variety of circumstances favour the notion that vast treasures in taste lie hidden in the alluvial depths of the Tiber; for, in times of commotion, whatever was engulphed therein was not likely to be removed while the ferment remained; and, from the indolent and unenterprising spirit of the Italians, it is probable no effort was ever made to recover what was lost."

INSTITUTION OF CIVIL ENGINEERS.

February 3rd.—Sir John Rennie, president, in the chair. The paper of the evening was by Mr. W. H. Barlow, "On the existence (practically) of the line of equal horizontal thrust in arches, and the mode of determining it by geometrical construction." The author commenced with a review of former theories on the subject by David Gregory, La Hire, Attwood, Coulomb, and Moseley. With the latter he agreed in the principle, that the line of resistance must be contained within the thickness of the arch, at every joint, and must meet each joint within the limiting angle of friction. The analogy between the catenary, the line of pressure of Whewell, the line of resistance of Mosely, was then pointed out, and the practical existence of the curve of equal horizontal thrust, together with its nature and properties was successfully illustrated by various models. The mode of obtaining the curve by geometrical construction was then shewn, together with formulæ for obtaining the necessary thickness of abutments, &c. Numerous drawings and diagrams illustrated this part of the subject. The paper concluded with a reference to the various circumstances in which arches were placed in practice, and the modifications to which theory was consequently subject. It was stated that more than thirty bridges on the Manchester and Birmingham railway had been erected, according to the principles described, with perfect success, and with considerable saving in brickwork. In the discussion which ensued the speakers accorded in attributing great credit to the author for his accurate mathematical investigation, and the judicious application to practice.

Miscellanea.

Meeting of Masons.—Last week, a meeting of the operative stone-masons was held in the Concert-hall, Lord Nelson-street, Liverpool, for the purpose of taking into consideration whether an advance of wages, or a reduction of the hours of labour, would be of the most permanent benefit to the trade. The attendance was numerous, there being upwards of 600 persons present. Mr. George Dobson, an operative, presided. Mr. Carter, the secretary, moved a resolution to the effect, that the condition of the masons of England was such as required considerable improvement, both morally, mentally, and physically, and they were also of opinion that a reduction of the hours of labour in the summer months to nine hours per day, was better calculated to effect such improvements than an advance of wages, and they pledged themselves to use their utmost exertions to carry the arrangement into effect. A second resolution stated, that in order to carry out the spirit of the foregoing resolution effectually, it was necessary that a good understanding should exist between every member of the trade, and to effect this it was essential that all who were not members of the masons' society should enter it as early as possible, and that a committee be appointed by that society to convey their intentions to the employers of Liverpool and vicinity.

St. Simon's Church, Liverpool.—Relative to this proposed church, we learn from the *Liverpool Mail*, that within the last few days the building committee, out of ten plans sent in to them by the principal architects of the town, have unanimously selected the one designed by Mr. John Hay, of St. George's Chambers. Having ourselves examined Mr. Hay's plans, continues the *Mail*, we take leave to compliment the committee upon the correct taste they have shewn in selecting them. If the intended building in any degree comes up to its paper drawing, it will be both an ornament and credit to the town, and, we may add, to the Church also: there will be a character, *a tone* about its external appearance—the graceful spire, the high-pitched roof, the splendid windows, that will arrest attention, and tell out to what and *Whose* service it has been dedicated. The porch of the principal, or western entrance, will be divided from the body of the church by a handsome screen, inscribed with appropriate texts, and fitted with plate-glass panels. The entire ground floor of this church will be fitted with open benches.

New York; the Paving, Scavenging, &c.—In scavenging and cleaning the streets, as well as soughing, paving, &c., New York is far behind Manchester and the generality of our large English towns. The pavements in the middle of the streets are composed of irregular boulder stones, with gaps or holes every now and then, enough to break a horse's leg if unused to them. The grids being often stopped by the floatings of vegetable matter, ashes, &c., which are thrown into the streets, cause the water to accumulate and freeze, and there is great danger even in the day time, if you are not careful—but especially at night—of tripping up your own heels by treading on the ice. The flags also, at the sides of the streets, as well as the brick pavements where flags have not been put down, are very uneven, compared with Manchester, Leeds, Liverpool, London, &c., leaving holes for the lodgment of water and ice, so as to require all your care in order that you may not fall. Pigs are everywhere to be seen in the streets, and are, in fact, the best scavengers in New York, by taking away the offensive vegetable matter, so that (at this time of the year at least) the nasal organs are not at all offended. I have been told more than once since my arrival here, that one important reason why the pigs are not prevented from traversing the streets of New York is this:—That any man who would advocate such a course, would offend the labouring classes so much, by thus interfering with the liberty of their pigs, as to forfeit their votes and support in the attainment of municipal and other offices. I have little doubt that time and experience will remedy these defects, but at present they form drawbacks to the splendour of New York.—*Memoir of B. Braidley, Esq.*

Another Accident at Paris.—A terrible accident happened on the 31st ult., in the workshops of Messrs. Chagot, Brunet, and Co., 30, Rue de Bienfaisance. Experiments were made with an iron framework destined for the roof of the terminus of the Orleans-Tours railway, made after the plans and models of the engineers and architects of Government. One experiment of burthening the surface of the framework had perfectly succeeded. It was then intended to calculate the strength of one single king-post by attaching to it wooden scales, charged with weights, when, at once, the whole framework came down. The workmen could not retire quickly enough, and twelve were dangerously wounded. Mr. Brunet himself was mortally wounded, and shortly afterwards died. What Mr. B. wanted to experimentalize upon were three pairs of *principals*, of cast-iron. Hitherto, in France and England, wrought-iron has been used, whose greater elasticity is averred, as it has to stand both flexion and traction. It will be matter of risk now to put the whole iron framework on the top of the terminus—being an elevation of six metres, with thirty-six cast-iron pillars to support it. Then, besides the weight which is to be borne by it, the constant vibration occasioned by the passing of the trains is to be taken into account. Now, concludes a worthy Paris contemporary, the falling of such a roof over a whole train of passengers would be the most awful catastrophe ever recorded in railway history.

Improvements in the Electric Telegraph.—For some time past the attention of Messrs. Wheatstone and Cook in this country, and of M. Matteucci on the continent, has been directed towards ascertaining whether one conducting wire for telegraphic communication be not sufficient, instead of two, heretofore used. A great variety of experiments have been made and some novel phenomena connected with the electric fluid elicited. The result is a most perfect confirmation of the theory entertained *à priori*. A telegraph consisting of a single wire is now in operation on the Edinburgh and Glasgow Railway, and, according to *The Scotsman*, "works beautifully." A distinct message can be conveyed and an intimation that it has been received returned in one minute, and a simple intimation notifying the presence of the operator can pass and repass in two seconds.

Restoration.—The old church of Binbrook, St. Mary, Lincolnshire, which has been in ruins 20 years, will be shortly rebuilt.

The Lakes.—By Midsummer next, visitors to the Lakes of Cumberland will be able to reach the same by railway.

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